

Application No.: 09/341,225

60,680-1281

REMARKS

Claims 29-31, 33-49, and 51-62 are pending in the present application. Claim 49 has been amended to address a typographical error and to explicitly include the limitation of a compacted insulating material. Claims 60 through 62 have been added to the application with claim 60 being an independent claim and claims 61 and 62 each depending from claim 60.

I. Claim Rejections**A. Double Patenting**

Claims 29-31 and 33-48 have been rejected under the so-called doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of US 6,279,229 in view of Yoneno et al. A terminal disclaimer is enclosed in view of the earlier filing date of the present application and the addition of claim 60.

B. Sextl

The Examiner rejected claims 29-31, 33-38, 42, 44-49, 51, 52, and 56-59 as being anticipated by US 5,316,816 to Sextl. The rejection is respectfully traversed.

Rejections under 35 U.S.C. § 102 require that a single reference disclose each and every claim element either expressly or inherently. *In re Roberson et al.*, 169 F.3d 743, 745 (Fed. Cir. 1999). To anticipate, a single reference must describe the subject matter claimed in the patent with sufficient detail and clarity to demonstrate that the subject matter existed and that a person of ordinary skill in the art would have recognized its existence in the asserted prior art reference. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 545 (Fed. Cir. 1998). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *See MPEP §2131*.

Independent claims 29 and 49 include several limitations not found in Sextl. For example, the claims require that there be a plate that is at least partially plastically deformable. This limitation is not shown in Sextl. Further, the claims teach that the insulating material must be compacted in the manner recited. This teaching is also not shown in Sextl. Finally, Sextl does not

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teach the group of insulating material recited in the two claims, including, for example, expanded graphite. More specifically, Sextl discloses the use of silicon dioxide "used alone or in a mixture with other silicas or powdery substances" as an insulating material. Col. 4, lines 66-68. At no point does Sextl disclose an insulating material that does not include silicon dioxide.

Nor does Sextl recite limitations found in various dependent claims. For example, claims 30 and 51 recite that the insulating material is selected from the group consisting of powder and flakes. No showing is made by the Examiner of where this limitation is found in Sextl. The Examiner has not shown that the insulating material in Sextl includes a filler, as required by claim 33. The active compacting of the insulating material being achieved by movement of the second plate towards the first plate as required by claim 34 is not shown by the Examiner as being present in Sextl. The compacting of the insulating material being carried out by a pressing tool in at least one pressing movement as recited in claim 35 is not shown by the Examiner in Sextl.

The Examiner points to no portion of Sextl that shows the steps of applying additional insulating material onto at least regions of the first plate and the previously compacted insulating material and compacting the additional insulating material, as recited in claim 36. Further, Sextl is not shown to disclose removing the insulating material that is not compacted, as recited in claim 37. The Examiner has not shown where in Sextl the second plate is at least partially flanged to the edge of the first plate as recited in claim 44. There is no teaching in Sextl of the limitations of claim 45, again concerning compacting of the insulating material nor of three-dimensionally deforming the heat shield after the first and second plates are connected. The Examiner has not shown in Sextl where at least a portion of the first plate is electrostatically charged prior to the application of the insulating material and the insulating material being applied to the non-charged portion of the first plate being removed prior to compaction, as recited in claim 47. Similarly, the Examiner has not shown where in Sextl there is the step of removing a portion of the insulating material from the plate with a tool that is electrostatically charged in certain regions.

With respect to claims 56 and 57, claim 56 requires that at least one of the plates include a surface that is coated with a material that reflects radiated heat, claim 57 includes the additional limitation that the side of the heat shield that is remote from the radiated heat includes a

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modification selected from the group of modifications indicated in the claim. The Examiner has not shown where in Sextl the thickness of the insulating material positioned between first and second plates is varied at different locations as recited in claim 58. Finally, the Examiner has not shown where in Sextl there is a teaching that predetermined portions of the heat shield are kept free of the insulating material as recited in claim 59.

C. Kawasaki

The Examiner has rejected claims 29, 30, 31, 33, 34, 38, 44, 45, 49, 51, 52, 56, and 57 as being anticipated by US 4,669,632 to Kawasaki et al. The rejection is respectfully traversed.

Kawasaki et al. is irrelevant to the environment of the claimed invention. Most significantly, Kawasaki et al. is inappropriate for use in the high temperature environment to which a motor vehicle is exposed. It would fail. As taught in Kawasaki et al., the disclosed heat insulation unit is intended for use in a much different environment such as a heat insulation panel for refrigerators, which is not subject to the operational temperatures of an internal combustion engine. (Col. 1, lines 5-7).

Independent of the entirely different environment of intended use by Kawasaki et al., it lacks specific limitations of independent claims 29 and 49. The claims require that there be a plate that is at least partially plastically deformable. Kawasaki et al. lacks plates. It is directed to a bag 12 that includes films 16. Films are not plates. Films would fail if used for a heat shield of a motor vehicle. Further, the claims require that at least a portion of the plate must be partially plastically deformable. The Examiner has additionally not shown where this limitation is present in Kawasaki et al. The claims teach that the insulating material must be compacted. This teaching is also not shown in Kawasaki et al. Kawasaki et al. does not teach the group of insulating material recited in the two claims. Finally, there is absolutely no reference to mica, expanded graphite, or a mica decomposition.

Nor does Kawasaki et al. recite limitations found in various dependent claims. For example, claims 30 and 51 recite that the insulating material is selected from the group consisting of powder and flakes. No showing is made by the Examiner of where this limitation is found in Kawasaki et

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al. The Examiner has not shown that the insulating material in Kawasaki et al. includes a filler, in the manner required by claim 33.

D. Jackson

Claims 29, 30, 31, 38, 43, 44, 49, 51, 52, 53, 54, 58, and 59 have been rejected as being anticipated by Jackson. Claims 3, 40, 41, 47, 48 and 55 have been rejected as being obvious over Jackson. The rejections are traversed.

Jackson is irrelevant to the environment of the claimed invention. Most significantly, Jackson is inappropriate for use in the high temperature environment to which a motor vehicle is exposed. It would fail. As taught in Jackson, the disclosed thermal insulation system is intended for use in a much different environment such as for forming the walls of tanks for storing liquefied gases, which is not subject to the high operational temperatures of an internal combustion engine. (Col. 1, lines 10-12).

Independent of the entirely different environment of intended use by Jackson, it lacks specific limitations of independent claims 29 and 49. For example, the claims require that there be a plate that is at least partially plastically deformable. This limitation is not shown in Jackson. Further, the claims teach that at least a portion of the insulating material must be compacted. This teaching is also not shown in Jackson. On the contrary, Jackson explicitly teaches away from compaction by reciting that blocks 10 are of rigid open cell plastic material such as polyvinyl chloride to promote evacuation. (Col. 2, lines 20-22). Jackson further teaches away from compaction by requiring that the load bearing insulation should be rigid to undergo compressive forces, due to air and fluid pressure acting on the external surfaces of the insulation through the flexible metal. (Col. 5, lines 27-29). The evacuation process is to provide better insulation. Col. 5, lines 49- 50). Finally, Jackson does not teach the group of insulating material recited in the two claims, including, for example, expanded graphite.

Nor does Jackson teach limitations of several of the dependent claims of the application based on section 102 anticipation. For example, claim 38 recites that the insulating material is applied substantially evenly on the first plate, but the Examiner explicitly notes that there are

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sections (4, 4a) that do not contain insulation referring to figures 2, 3, and 5 along with column 2, lines 36-60. Claim 43 recites a surface formation to facilitate the distribution of the insulating material upon compaction. No such teaching is shown by the Examiner in Jackson.

With respect to the rejection of various dependent claims as being obvious over Jackson, the claims are again patentably distinct. For example, nowhere in Jackson is there a teaching of providing the insulating material on the first plate in the shape of a cone, and wherein the compacting of the insulating material distributes the insulating material on the first plate as required by claim 39. The requirement of claims 47 and 48, related to electrostatic charging, is not shown by the Examiner as being disclosed in Jackson, nor is the limitation related to roughness as set forth in the context of claim 55. If the Examiner is taking official notice with respect to claim 55, then Applicants request that support for the taking of Official Notice be provided as required by 37 CFR 1.104(d)(2) and MPEP 2144.04.

E. New Claims

Applicants have added new claims 60-62 with claim 60 being an independent claim. It is respectfully submitted that the claims are also patentably distinct from the prior art of record and in condition for allowance with the submission of a terminal disclaimer.

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II. Conclusion

In view of the foregoing, it is respectfully submitted that all of the claims of the application are in condition for allowance. It is believed that any additional fees due with respect to this paper are identified in the accompanying transmittal. However, if any additional fees are required in connection with the filing of this paper, permission is given to charge account number 18-0013 in the name of Rader, Fishman & Grauer PLLC.

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the 17th falling on Saturday.

Respectfully submitted,

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